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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,759	07/30/2003	**Glenn Roy**	006943.00107	6813

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EXAMINER	
STULII, VERA	
ART UNIT	**PAPER NUMBER**
1794	

MAIL DATE	DELIVERY MODE
07/09/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/629,759	ROY ET AL.	
	Examiner	Art Unit	
	VERA STULII	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-7,10-13,15-21,24 and 25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-7,10-13,15-21,24 and 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/17/2009 has been entered.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3-7, 10-11, 15-17, 19-21, 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akihiko et al (JP 2001323263).

ICS (Institute for Coffee Studies) and Horn-Ross are cited as evidence as discussed below.

Akihiko et al discloses pigment fading inhibitor and method for inhibiting fading of pigment using pigment fading inhibitor (Abstract). In regard to claim 1, 20, 21, 22-25 Akihiko et al disclose a food coloring composition comprising pigment color and pigment fading inhibitor (Abstract). Akihiko et al disclose riboflavin, carothene and other pigments, and coffee bean extract as a pigment fading inhibitor (Abstract). Akihiko et al also disclose that color (pigment) is used for food and beverages (Abstract). Akihiko et

al disclose that raw coffee beans extract contains 33% of chlorogenic acid (p. 4 [0015]). Regarding "*synthetic* color" limitation, Akihiko et al disclose industrial riboflavin preparation (p.3 [0014]).

As evidenced by ICS, "Green coffee beans contain up to 10% of chlorogenic acids, i.e., various isomers of hydroxy-cinnamoyl esters of quinic acid (a common plant constituent)". Regarding claim 10, as evidenced by ICS, "Green coffee beans contain up to 10% of chlorogenic acids, i.e., various isomers of hydroxy-cinnamoyl esters of quinic acid (a common plant constituent)". Regarding claim 11, as evidenced by Horn-Ross, primary sources of coumestrol and lignans include orange juice and coffee (p. 300). Regarding claim 15, as evidenced by Horn-Ross, coffee is a major source of daidzein (isoflavone) (p. 300). Regarding claim 16, Akihiko et al disclose botanical extract (coffee bean). Regarding claims 17, 24, and 25, Akihiko et al disclose that raw coffee beans (green coffee beans) extract contains 33% of chlorogenic acid (p. 2 [0009]; p. 4 [0015]).

Regarding claims 3-7, Akihiko et al teach that concentrations color inhibiting composition and color are not limited, and may be chosen depending on "content and concentration of coloring matter", preferably 0.001 to 500% of the weight of the coloring matter (p. 3 [0013]).

Since Akihiko teach the use of a botanically derived color stabilizer from coffee extract, and since coffee extract contains chlorogenic acids, isomers of hydroxy-cinnamoyl esters, coumestrol (coumarin), and daidzein (isoflavone), then coffee extract disclosed by Akihiko meets limitation of chlorogenic acid and cinnamoyl esters recited in

claims 1 and 20-21, coumestrol (coumarin) recited in claims 1, 11 and 20-21, and daidzein (isoflavone) recited in claims 1, 15 and 20-21.

Akihiko et al do not disclose colors/pigments as currently recited. However, as disclosed by applicant and understood in the art, each of the originally claimed synthetic colors would be a functional equivalent known in the art. Color additives as taught by Akihiko et al and recited by applicant were known to be added or applied to a food, drug or cosmetic, are capable of imparting color. These color additives were used in foods for the reasons of offsetting color loss due to exposure to light, air, temperature extremes, moisture and storage conditions; correcting natural variations in color; enhancing colors that occur naturally; etc. Since color additives as recited and taught by Akihiko et al are functional equivalents known for the same purpose, it would have been obvious to substitute one for another. It would also have been obvious to substitute one color additive for another based on expectation of similar functions and similar positive results. The concept of preventing color fading using botanically derived color stabilizers is taught by Akihiko et al and therefore is shown to be known. Substitution of one color additive with another for the same purpose would not impart any patentable distinction.

Regarding "*synthetic* color" limitation, Akihiko et al disclose industrial riboflavin preparation (p.3 [0014]).In any case, the concept of preventing color fading using botanically derived color stabilizers is taught by Akihiko et al and therefore is shown to be known. Akihiko et al recognizes the problem of color fading, and teaches the solution of the problem, i.e. preventing color fading using botanically derived color stabilizers. One of ordinary skill in the art would have been motivated to employ teachings of

Akihiko et al and to solve the same problem (color fading) by applying known solution as disclosed by Akihiko et al (preventing color fading using botanically derived color stabilizers).

Regarding claim 19, Akihiko et al do not disclose that coloring composition contains sorbic acids, aconitic acid, fumaric acid, or maleic acid. However, Akihiko et al disclose that additional substance may be added to coffee bean extract, for example ascorbic acid as a reducing agent (p. 2 [0010]). It was well known in the art that fumaric acid and sorbic acids are strong reducing agents that were used in food industry. One of the ordinary skill in the art would have been motivated to modify disclosure of Akihiko et al and to use fumaric or sorbic acid as a reducing agent as taught by Akihiko et al. One of ordinary skill in the art would have been motivated to do so since Akihiko et al teach adding any reducing agents. One of ordinary skill in the art would also have been motivated to do so, since fumaric acid and ascorbic acid were well known reducing agents.

Claims 12-13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akihiko et al (JP 2001323263) in view of COFFEE (COFFEE: RELATED BEVERAGES).

Akihiko et al is taken as cited above.

Akihiko et al do not disclose use of botanical extracts other than coffee bean extract. It is not clear whether coffee extract contains chalcones and flavones.

COFFEE reference discloses that dandelion root is a well known coffee substitute that is sometimes used to a considerable extent. COFFEE discloses that

"dandelion root was known in 1855, and was produces industrially in this century in Denmark and Sweden" (p. 12). COFFEE also discloses that similarity of the root with that of chicory has long been recognized (p. 12). COFFEE also discloses that chicory was a well known coffee substitute that is still widely commercially produced (p. 2). COFFEE reference also discloses that hawthorn (the fruits of Crataegus oxyacantha L.) were used as a coffee substitute by the German Government in the First World War (p.16).

On pages 6-7 of Specification Applicants state that "In other preferred embodiments, the C6-C3 phenylpropenoic carbonyl compound is selected from cinnamoyl esters, coumarins, chalcones, flavones, chromones, isoflavones, and combinations thereof and may optionally be provided in the form of an extract of a botanical selected from horse chestnut extract, dandelion extract, eucalyptus extract, stringybark extract, saw palmetto extract, honeysuckle extract, hawthorn extract, noni fruit extract, red clover extract, orange extract, buckwheat extract, chamomile extract and combinations thereof" [0021]. Since Akihiko et al disclose pigment fading inhibitor comprising coffee bean extract as an active ingredient, and since dandelion root and hawthorn were well known coffee substitutes, one of the ordinary skill in the art would have been motivated to substitute one coffee material with another coffee material (dandelion or hawthorn), since beans, dandelion root and hawthorn were well known coffee substitutes. Since COFFEE discloses dandelion root extract and hawthorn extract, it also meets limitations of claims 12 and 13 according to Applicants' disclosure.

Response to Arguments

The rejection under 35 U.S.C. 112, second paragraph has been withdrawn due to the claims amendments.

Applicant's arguments filed 06/20/2008 in response to the Office action mailed 03/21/2008 have been fully considered but they are not persuasive.

In regard to Applicants' arguments that Akihiko et al do not disclosed synthetic colors as recited in claims 1, 20 and 21 (page 10 of the Reply to the office action mailed 03/21/2008) and teaches away from the prevention of synthetic color fading, Applicants are referred to the rejection of claims 1, 3-7, 10-11, 15-17, 20-21, 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akihiko et al (JP 2001323263) as stated above. In any case, the concept of preventing color fading using botanically derived color stabilizers is taught by Akihiko et al and therefore is shown to be known. Akihiko et al recognizes the problem of color fading, and teaches the solution of the problem, i.e. preventing color fading using botanically derived color stabilizers. One of ordinary skill in the art would have been motivated to employ teachings of Akihiko et al in order to solve the same problem (color fading) by applying known solution as disclosed by Akihiko et al (preventing color fading using botanically derived color stabilizers).

On pages 10-11 of the Reply, Applicants state that "[o]ne of ordinary skill in the art would not find the claims of the instant invention obvious when taking into account ICS and/or Horn-Ross in light of Akihiko. Nowhere in either ICS or Horn-Ross is color stabilization mentioned, and moreover, one of ordinary skill in the art would not find it

obvious to use the phytoestrogenic compounds (daidzein and coumestrol) in the manner set forth in the instant claims to employ a botanically derived stabilizer with a synthetic color to prevent fading". In response to this argument, it is noted that Akihiko et al discloses a coffee bean extract as a pigment fading inhibitor (Abstract). ICS reference is relied upon as an evidenced of coffee beans containing up to 10% of chlorogenic acids, i.e., various isomers of hydroxy-cinnamoyl esters of quinic acid (a common plant constituent, up to 10% of chlorogenic acids, i.e., various isomers of hydroxy-cinnamoyl esters of quinic acid (a common plant constituent). Horn-Ross reference is relied upon as an evidenced of coffee beans being a primary sources of coumestrol, lignans and daidzein (isoflavone) (p. 300).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Applicant is referred to the Office action as stated above.

In response to the rejection of claims 12-13 and 18, Applicants state that "[a]lthough dandelion root and hawthorn were well known-coffee substitutes, they were/are only coffee substitutes for flavor/drinkability purposes. COFFEE does not disclose the structure and properties of these ingredients in relation to coffee, or

substitutability of these ingredients for coffee for any purpose other than flavor" (page 12 of the Reply). Examiner respectfully disagrees. Coffee beans are primarily associated with coffee beverage as their main use. Therefore, one of ordinary skill in the art would have been fairly led to apply coffee beverage substitutes, as coffee beans substitutes. Further in this regard, it is noted that COFFEE reference discloses that dandelion root is a well known coffee substitute that is sometimes used to a considerable extent. COFFEE also discloses that similarity of the root with that of chicory has long been recognized (p. 12). COFFEE also discloses that chicory was a well known coffee substitute that is still widely commercially produced (p. 2). Since Akihiko et al disclose pigment fading inhibitor comprising coffee bean extract as an active ingredient, and since dandelion root and hawthorn were well known coffee substitutes, one of the ordinary skill in the art would have been motivated to substitute one coffee material with another coffee material (dandelion or hawthorn), since beans, dandelion root and hawthorn were well known coffee substitutes. Substitution of one coffee material with another would not impart any patentable distinction.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VERA STULII whose telephone number is (571)272-3221. The examiner can normally be reached on 7:00 am-3:30 pm, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VS

/KEITH D. HENDRICKS/
Supervisory Patent Examiner, Art Unit 1794